

VPDES PERMIT FACT SHEET

This document gives the pertinent information concerning the reissuance of the VPDES permit listed below. This permit is being processed as a **Minor, Industrial** permit. The effluent limitations contained in this permit will maintain the Water Quality Standards of 9 VAC 25-260-00 et seq. The discharge results from the operation of a petroleum products distribution center. Wastewater is generated from potentially contaminated storm water and hydrostatic test water. This permit action consists of updating boilerplate , changing the monitoring frequency for TSS, TOC, and TPH, and changing the limit for TPH.

1. **Facility Name and Address:** **SIC Code:** 4226
Magellan Terminals Holdings, L.P. - Montvale Terminal
11851 Lynchburg-Salem Turnpike
Montvale, VA 24122
Location: U. S. Highway 460, Montvale, VA
2. **Permit No.** VA0055328 **Expiration Date:** September 24, 2008
3. **Owner Contact:** Name: Joe Tuck Title: Terminal Supervisor
Telephone No.: (540) 947-2614
4. Application Complete Date: February 8, 2008
Permit Drafted By: Kevin A. Harlow Date: August 8, 2008
Reviewed By: Kip Foster Date: August 11, 2008
Public Comment Period Dates: From: 8/20/08 To: 9/20/08
5. **Receiving Waters Classification:**
Receiving Stream:UT, South Fork Goose Creek
Basin: Roanoke River Subbasin:Roanoke River Section:5a Class: III Special Stds: PWS
7-Day, 10-Year Low Flow: 0.0 MGD 1-Day, 10-Year Low Flow: 0.0 MGD
30-Day, 5-Year Low Flow: 0.0 MGD Harmonic Mean Flow: 0.0 MGD
30-Day,10-Year Low Flow: 0.0 MGD
Tidal: No On 303(d) List: No
6. **Licensed Operator Requirements:** None
7. **Reliability Class:** N/A
8. **Permit Characterization:**
(X) Private () Federal () State () POTW
() Possible Interstate Effect () Interim Limits in Other Document
9. **Facility Description:**
See attached site visit report and flow diagram (**Attachments A**).

Revised 2/2003

**State "FY2003 Transmittal Checklist" to Assist in Targeting
Municipal and Industrial Individual NPDES Draft Permits for Review**

Part I. State Draft Permit Submission Checklist

In accordance with the MOA established between the Commonwealth of Virginia and the United States Environmental Protection Agency, Region III, the Commonwealth submits the following draft National Pollutant Discharge Elimination System (NPDES) permit for Agency review and concurrence.

Facility Name: Magellan Terminals Holdings, L.P. - Montvale Terminal
NPDES Permit Number: VA0055328
Permit Writer Name: Kevin A. Harlow
Date: August 7, 2008

Major [] Minor [X] Industrial [X] Municipal []

I.A. Draft Permit Package Submittal Includes:	Yes	No	N/A
1. Permit Application?	X		
2. Complete Draft Permit (for renewal or first time permit – entire permit, including boilerplate information)?	X		
3. Copy of Public Notice?		X	
4. Complete Fact Sheet?	X		
5. A Priority Pollutant Screening to determine parameters of concern?	X		
6. A Reasonable Potential analysis showing calculated WQBELs?	X		
7. Dissolved Oxygen calculations?		X	
8. Whole Effluent Toxicity Test summary and analysis?	X		
9. Permit Rating Sheet for new or modified industrial facilities?			X

I.B. Permit/Facility Characteristics	Yes	No	N/A
1. Is this a new, or currently unpermitted facility?		X	
2. Are all permissible outfalls (including combined sewer overflow points, non-process water and storm water) from the facility properly identified and authorized in the permit?	X		
3. Does the fact sheet or permit contain a description of the wastewater treatment process?	X		

I.B. Permit/Facility Characteristics – cont. (FY2003)	Yes	No	N/A
4. Does the review of PCS/DMR data for at least the last 3 years indicate significant non-compliance with the existing permit?		X	
5. Has there been any change in streamflow characteristics since the last permit was developed?		X	
6. Does the permit allow the discharge of new or increased loadings of any pollutants?		X	
7. Does the fact sheet or permit provide a description of the receiving water body(s) to which the facility discharges, including information on low/critical flow conditions and designated/existing uses?	X		
8. Does the facility discharge to a 303(d) listed water?		X	
a. Has a TMDL been developed and approved by EPA for the impaired water?			X
b. Does the record indicate that the TMDL development is on the State priority list and will most likely be developed within the life of the permit?			X
c. Does the facility discharge a pollutant of concern identified in the TMDL or 303(d) listed water?			X
9. Have any limits been removed, or are any limits less stringent, than those in the current permit?		X	
10. Does the permit authorize discharges of storm water?	X		
11. Has the facility substantially enlarged or altered its operation or substantially increased its flow or production?		X	
12. Are there any production-based, technology-based effluent limits in the permit?		X	
13. Do any water quality-based effluent limit calculations differ from the State's standard policies or procedures?		X	
14. Are any WQBELs based on an interpretation of narrative criteria?		X	
15. Does the permit incorporate any variances or other exceptions to the State's standards or regulations?		X	
16. Does the permit contain a compliance schedule for any limit or condition?		X	
17. Is there a potential impact to endangered/threatened species or their habitat by the facility's discharge(s)?		X	
18. Have impacts from the discharge(s) at downstream potable water supplies been evaluated?	X		
19. Is there any indication that there is significant public interest in the permit action proposed for this facility?		X	
20. Have previous permit, application, and fact sheet been examined?	X		

Part II. NPDES Draft Permit Checklist (FY2003)

Region III NPDES Permit Quality Review Checklist – For Non-Municipals *(To be completed and included in the record for all non-POTWs)*

II.A. Permit Cover Page/Administration		
	Yes	No
1. Does the fact sheet or permit describe the physical location of the facility, including latitude and longitude (not necessarily on permit cover page)?	X	
2. Does the permit contain specific authorization-to-discharge information (from where to where, by whom)?	X	

II.B. Effluent Limits – General Elements		
	Yes	No
1. Does the fact sheet describe the basis of final limits in the permit (e.g., that a comparison of technology and water quality-based limits was performed, and the most stringent limit selected)?	X	
2. Does the fact sheet discuss whether "antibacksliding" provisions were met for any limits that are less stringent than those in the previous NPDES permit?	X	

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ)		
	Yes	No
1. Is the facility subject to a national effluent limitations guideline (ELG)?		X
a. If yes, does the record adequately document the categorization process, including an evaluation of whether the facility is a new source or an existing source?		X
b. If no, does the record indicate that a technology-based analysis based on Best Professional Judgement (BPJ) was used for all pollutants of concern discharged at treatable concentrations?	X	
2. For all limits developed based on BPJ, does the record indicate that the limits are consistent with the criteria established at 40 CFR 125.3(d)?	X	
3. Does the fact sheet adequately document the calculations used to develop both ELG and /or BPJ technology-based effluent limits?	X	
4. For all limits that are based on production or flow, does the record indicate that the calculations are based on a "reasonable measure of ACTUAL production" for the facility (not design)?		X
5. Does the permit contain "tiered" limits that reflect projected increases in production or flow?		X
a. If yes, does the permit require the facility to notify the permitting authority when alternate levels of production or flow are attained?		X
6. Are technology-based permit limits expressed in appropriate units of measure (e.g., concentration, mass, SU)?	X	

II.C. Technology-Based Effluent Limits (Effluent Guidelines & BPJ) – cont.	Yes	No	N/A
7. Are all technology-based limits expressed in terms of both maximum daily, weekly average, and/or monthly average limits?		X	
8. Are any final limits less stringent than required by applicable effluent limitations guidelines or BPJ?		X	

II.D. Water Quality-Based Effluent Limits	Yes	No	N/A
1. Does the permit include appropriate limitations consistent with 40 CFR 122.44(d) covering State narrative and numeric criteria for water quality?	X		
2. Does the record indicate that any WQBELs were derived from a completed and EPA approved TMDL?		X	
3. Does the fact sheet provide effluent characteristics for each outfall?	X		
4. Does the fact sheet document that a “reasonable potential” evaluation was performed?	X		
a. If yes, does the fact sheet indicate that the “reasonable potential” evaluation was performed in accordance with the State’s approved procedures?	X		
b. Does the fact sheet describe the basis for allowing or disallowing in-stream dilution or a mixing zone?	X		
c. Does the fact sheet present WLA calculation procedures for all pollutants that were found to have “reasonable potential”?	X		
d. Does the fact sheet indicate that the “reasonable potential” and WLA calculations accounted for contributions from upstream sources (i.e., do calculations include ambient/background concentrations where data are available)?	X		
e. Does the permit contain numeric effluent limits for all pollutants for which “reasonable potential” was determined?	X		
5. Are all final WQBELs in the permit consistent with the justification and/or documentation provided in the fact sheet?	X		
6. For all final WQBELs, are BOTH long-term (e.g., average monthly) AND short-term (e.g., maximum daily, weekly average, instantaneous) effluent limits established?	X		
7. Are WQBELs expressed in the permit using appropriate units of measure (e.g., mass, concentration)?	X		
8. Does the fact sheet indicate that an “antidegradation” review was performed in accordance with the State’s approved antidegradation policy?	X		

FY2003

II.E. Monitoring and Reporting Requirements (FY2003)	Yes	No	N/A
1. Does the permit require at least annual monitoring for all limited parameters?	X		
a. If no, does the fact sheet indicate that the facility applied for and was granted a monitoring waiver, AND, does the permit specifically incorporate this waiver?			
2. Does the permit identify the physical location where monitoring is to be performed for each outfall?	X		
3. Does the permit require testing for Whole Effluent Toxicity in accordance with the State's standard practices?	X		

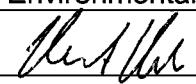
II.F. Special Conditions	Yes	No	N/A
1. Does the permit require development and implementation of a Best Management Practices (BMP) plan or site-specific BMPs?		X	
a. If yes, does the permit adequately incorporate and require compliance with the BMPs?			X
2. If the permit contains compliance schedule(s), are they consistent with statutory and regulatory deadlines and requirements?			X
3. Are other special conditions (e.g., ambient sampling, mixing studies, TIE/TRE, BMPs, special studies) consistent with CWA and NPDES regulations?	X		

II.G. Standard Conditions	Yes	No	N/A
1. Does the permit contain all 40 CFR 122.41 standard conditions or the State equivalent (or more stringent) conditions?	X		

List of Standard Conditions – 40 CFR 122.41	Duty to comply	Property rights	Reporting Requirements
	Duty to reapply	Duty to provide information	Planned change
	Need to halt or reduce activity not a defense	Inspections and entry	Anticipated noncompliance
	Duty to mitigate	Monitoring and records	Transfers
	Proper O & M	Signatory requirement	Monitoring reports
	Permit actions	Bypass	Compliance schedules
		Upset	24-Hour reporting
			Other non-compliance
2. Does the permit contain the additional standard condition (or the State equivalent or more stringent conditions) for existing non-municipal dischargers regarding pollutant notification levels [40 CFR 122.42(a)]?		X	

Part III. Signature Page (FY2003)

Based on a review of the data and other information submitted by the permit applicant, and the draft permit and other administrative records generated by the Department/Division and/or made available to the Department/Division, the information provided on this checklist is accurate and complete, to the best of my knowledge.

Name	<u>Kevin A. Harlow</u>
Title	<u>Environmental Engineer, Sr.</u>
Signature	
Date	<u>8/7/2008</u>

The Magellan Terminals Holdings LP - Montvale Terminal is a petroleum products distribution center. Petroleum products are piped to the terminal, stored in large, above ground tanks, and loaded onto trucks for distribution to retailers. Magellan Terminals Holdings LP acts as a warehouse of the product and does not directly own any of the product. As a result they do not fall under the general bulk terminal SIC code 5171, instead Magellan Terminals Holdings LP has a SIC code of 4226 - Special Warehousing and Storage. However, for the purposes of this permitting action, the requirements for 5171 will be applied. The terminal is classified as a bulk oil terminal based on the volume of product stored onsite. Maximum storage capacities for the products are: diesel – 3,574,200 gallons and gasoline – 2,200,800 gallons. There are three additive tanks: an 8,000 gallon diesel additive tank, one 2,000 gallon and one 5,000 gallon gasoline additive tank. Additionally, the facility may store ethanol for blending with gasoline.

There are no process water discharges from this site. The only discharge is from stormwater potentially contaminated by petroleum products. The stormwater is generated from two locations. The first location is the tank dike area. This area is normally valved closed. Stormwater that falls inside the bermed area is held and visually checked for sheen and TSS. If acceptable, the stormwater is released to a sedimentation basin. The stormwater is allowed to settle again and is batch released as necessary in approximately 4000 gallon batches through a 6 inch valve. The second source of stormwater is non-contaminated stormwater that runs off the hillside behind the tank area and is collected at the base of the driveway and diverted prior to entering the transport loading area. This stormwater flows by gravity to the sedimentation basin. Although the sedimentation basin is normally operated so that the stormwater is batch released, there are overflow pipes which allow the basin to overflow during emergency conditions. The pipes are angled so that the intake is below the surface in order to minimize release of any product that might be on the surface of the water. The sedimentation basin discharges to a VDOT drainage ditch that runs parallel to Rt. 460, flows under Rt. 460 to join the South Fork of Goose Creek.

The discharge from the truck loading rack area was eliminated in 1990. Stormwater from the truck rack loading area is collected and pumped to one of the above ground storage tanks. The water settles to the bottom of the tank where it is periodically pulled off and stored onsite in an underground 10000 gallon tank. The contents of the 10000 gallon tank are periodically pumped and shipped offsite for processing.

This permit specifically prohibits discharge of stormwater from the truck loading area and tank bottom waters.

In addition to the above sources of wastewater, the permittee requested in the application to discharge hydrostatic test water. This water would discharge through outfall 001.

Stormwater from the facility grounds northwest of the loading rack flows towards the main entrance where it enters a drainage pipe that discharges to the VDOT ditch. The discharge is only non-contact stormwater from SIC Code 4226. Therefore the discharge is not designated as a permitted outfall.

TABLE I
NUMBER AND DESCRIPTION OF OUTFALLS

OUTFALL NUMBER	DISCHARGE SOURCE	TREATMENT	MAXIMUM DAILY FLOW
001	Storm water from AST bermed area	Sedimentation basin	0.003 MGD
001	Hydrostatic test water	Sedimentation basin	0.5 MGD (1.8 million gallon tank discharged over 5 days)

10. **Sewage Sludge Use or Disposal:** N/A

11. **Discharge(s) Location Description:**

Name of Topo: Montvale - VA (See **Attachment A**)

Quadrangle Number: 108B

12. **Material Storage:**

Tank Farm

Diesel, gasoline, gasoline additives are stored in aboveground storage tanks located within a bermed area. The largest single tank is approximately 1.8 million gallons. There are plans to warehouse ethanol in the 2008 permit term.

13. **Ambient Water Quality Information:**

The water body ID for this receiving stream is VAW-L20R. The receiving stream for Outfall 001 is shown as a dry VDOT ditch leading to South Fork Goose Creek on the USGS Montvale Quadrangle topographic map. Flows have been revised based upon updated gage flows. The critical flow frequencies for the UT are 0.0 cfs. The flow frequency determination memo in **Attachment B** also includes the critical flow frequencies for the South Fork Goose Creek where the U.T. enters South Fork Goose Creek in order to establish the antidegradation baselines at the perennial stream. Data was collected on South Fork Goose Creek at the Route 897 bridge in Montvale, Station ID 4AGSF002.60 on 6/25/2002. The data is included in **Attachment B**. The receiving stream segment is not listed on Part 1 of the 303(d) list for exceedances of water quality standards.

14. **Antidegradation Review and Comments:**

Tier: 1. _____ 2. X 3

The State Water Control Board's Water Quality Standards (WQS) (9 VAC 25-260-30) provide all state surface waters one of three levels of antidegradation protection. For Tier I, existing uses of the water body and the water quality must be maintained. A Tier II water body has water quality that is better than the narrative and numeric water quality criteria. Significant lowering of the water quality of a Tier II water is not allowed without an evaluation of the economic and social

impacts, as required by Water Quality Standards, 9 VAC 25-260-30. A Tier III water body is an exceptional water body that is designated by regulation. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The antidegradation review begins with the Tier determination. The facility discharges to a dry ditch along Highway 460 that eventually flows into the South Fork of Goose Creek. The South Fork of Goose Creek is a perennial stream and is not listed on Part 1 of the 303(d) list for exceedances of water quality criteria. Available stream pollutant data have been compared to the WQS. This analysis indicates the quality of the South Fork of Goose Creek does not exceed numeric criteria for any pollutant and is therefore classified as a Tier II water with no “significant degradation” allowed.

For purposes of aquatic life protection, “significant degradation” means that no more than 25% the difference between the acute and chronic aquatic criteria values and the existing quality (unused assimilative capacity) may be allocated. For purposes of human health protection, “significant degradation” means that no more than 10% of the difference between the human health criteria and the existing quality (unused assimilative capacity) may be allocated. The significant degradation baseline (antidegradation baseline) is calculated for each pollutant as follows:

$$\text{Antidegradation baseline (aquatic life)} = 0.25 (\text{WQS} - \text{existing quality}) + \text{existing quality}$$

$$\text{Antidegradation baseline (human health)} = 0.10 (\text{WQS} - \text{existing quality}) + \text{existing quality}$$

Where:

“WQS” = Numeric criterion listed in 9 VAC 25-260-5 et seq. for the parameter analyzed

“Existing quality” = Concentration of the parameter being analyzed in the receiving stream, including the facility’s existing discharge.

When applied, the antidegradation baselines become the new water quality criteria to prevent significant degradation of the receiving stream. Effluent limits for future expansions or new facilities must be written to maintain the antidegradation baselines for each pollutant. Prior to expansion the antidegradation baselines will be calculated for this facility as described above, in accordance with Guidance Memorandum (GM) 00-2011). Permit limits are in compliance with antidegradation requirements set forth in the 9 VAC 25-260-30.

15. Site Inspection:

Date 10/4/06 Performed By Kevin A. Harlow
See Attachment A for a copy of the site inspection.

16. Effluent Screening and Limitation Development:

- | | |
|----------------|--|
| Attachment A - | Site/Flow Diagram, USGS Map, Site Visit Memo |
| Attachment B - | Flow Frequency Memo, Mix.exe Output, Waste Load Allocation Spreadsheet,
Receiving Stream Background Data, Background Data, Antidegradation
Baselines |
| Attachment C - | TMP Justification Memorandum |
| Attachment D - | NPDES Permit Rating Worksheet |

DEQ Guidance Memorandum 00-2011 was used in developing all water quality based limits pursuant to water quality standards (9 VAC 25-260-5 et seq.). Refer to **Attachment B** for the facility discharge information, wasteload allocation spreadsheet, and effluent limit calculations. See Table II for a summary of the effluent limitations and monitoring requirements associated with the permit parameters. See Table III for the basis for Outfall 001 limits.

Reduced Monitoring: All permit applications received after May 4, 1998, are to be considered for reduction in effluent monitoring frequency. GM 98-2005 states that “only facilities having exemplary operations that consistently meet permit requirements should be considered for reduced monitoring.” This facility has received Warning Letters W2006-07-W-1021 and W2006-12-W-1004 during the past three years. Due to these warning letters, and as specified in Part I.B.8 of the 2003 permit, the facility is not eligible for reduced monitoring in the 2008 permit. The monitoring frequency for TSS, TOC, and TPH reverts back to the 1998 frequency of once per discharge month (1/D-M).

OUTFALL 001

Flow: Flow is to be estimated once per discharge month. This sample type and monitoring frequency is in accordance with the VPDES Permit Manual. The sample type and monitoring frequency remain unchanged from the previous permit.

pH: pH limits of 6.0 S.U. minimum and 9.0 S.U. maximum are based on water quality standards (9 VAC 25-260-5 et seq.) for the receiving stream. Monitoring using grab samples once per discharge month is in accordance with the sampling guidelines in the VPDES Permit Manual. The limit, sample type, and monitoring frequency are unchanged from the previous permit.

Total Suspended Solids: A BPJ limit of 30 mg/l daily maximum was developed for this permit in 1988 and been continued in subsequent permit reissuances. During the 1998 permit term the earthen tank dikes were lined with rock to reduce erosion and the potential to discharge high concentrations of TSS potentially contaminated with petroleum products. Given that this facility has a control/treatment system and that the TSS limit is used by the operator as an operational control of the treatment system, the TSS limit will be maintained. The limit and sample type is unchanged from the previous permit. The monitoring frequency has reverted to once per discharge month from once per six months due to receiving warning letters while operating under a reduced monitoring frequency.

Total Organic Carbon: A technology-based limit of 110 mg/l daily maximum was imposed in the 1998 permit reissuance based on Best Professional Judgement and in accordance with the 1997 VPDES Permit Manual. Although the current VPDES Permit Manual recommends monitoring for TPH, the limit can not be removed due to antibacksliding requirements. The limit and sample type are unchanged from the previous permit. The monitoring frequency has reverted to once per discharge month from once per six months due to receiving warning letters while operating under a reduced monitoring frequency.

Total Petroleum Hydrocarbons: The monthly average TPH limit of 30 mg/L is changed to a daily maximum TPH limit of 15 mg/L. The VPDES Permit Manual recommends a BPJ maximum

daily limit of 15 mg/l for TPH. Also, the VPDES General Permit for Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests includes a 15 mg/L TPH maximum limit regardless of whether the facility has an oil/water separator. All TPH effluent monitoring data during the 2003 permit term was less “<QL” so no compliance schedule is necessary. The sample type is unchanged from the previous permit. Monitoring using grab samples once per discharge month is in accordance with the current VPDES Permit Manual. The monitoring frequency has reverted to once per discharge month from once per six months due to receiving warning letters while operating under a reduced monitoring frequency.

Other Water Quality Limits: The water quality standards monitoring results are in **Attachment B**. Only barium was detected above the quantification level with an average of 27 µg/L. However the average monitored barium concentration is likely the background concentration and does not have a reasonable potential to exceed the public health standard for barium of 2000 µg/L. Given the absence of zinc and a low concentration of barium, neither will be monitored in the reissued permit as part of the water quality monitoring special condition. Benzene, toluene, and ethylbenzene will be monitored once per permit term after three years from the permit's effective date due to the potential for contamination.

Whole Effluent Toxicity: Additional information and a summary of the data is included in the TMP Justification Memorandum in **Attachment C**. Data collected in the 2003 permit showed no acute whole effluent toxicity. WET testing is continued in the reissued permit as recommended in the DEQ Guidance Memorandum 00-2012 for bulk oil terminals. The recommended endpoint is a No Observed Adverse Effect Concentration (NOAEC) of 100%. The acute test is the 48-hour acute whole effluent toxicity test using *Ceriodaphnia dubia*.

Hydrostatic Test Water

Discharges from hydrostatic testing are limited through special condition Part I.B.5. This special condition, in accordance with the VPDES Permit Manual, sets limitations on TPH, benzene, toluene, ethylbenzene, xylene, and naphthalene. These limits are based on Best Professional Judgment and the Water Quality Standards (9 VAC 25-260-5 et seq) for a public water supply designated water. The limit for benzene is revised from 53 µg/L to 12 µg/L to protect the human health criteria for a PWS designated water. Total xylenes limit is changed from 74 µg/L to 33 µg/L to be consistent with the hydrostatic testing BPJ limit in the VPDES General Permit for Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests.

17. Antibacksliding Statement:

All limits in this reissuance are at least as stringent as the limits in the previous permit.

18. Compliance Schedules:

There will be no compliance schedules included in the reissued permit.

19. Special Conditions:

a. **Notification Levels (Part I.B.1)**

- Rationale:** Required by VPDES Permit Regulation, 9 VAC 25-31-200 A for all manufacturing, commercial, mining, and silvicultural dischargers.
- b. **Materials Handling/Storage (Part I.B.2)**
Rationale: 9 VAC 25-31-50 A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorizes the Board to regulate the discharge of industrial waste or other waste.
- c. **Operations and Maintenance Manual (Part I.B.3)**
Rationale: Required by Code of Virginia § 62.1-44.16; VPDES Permit Regulation, 9 VAC 25-31-190 E, and 40 CFR 122.41(e). These require proper operation and maintenance of the permitted facility. Compliance with an approved O&M manual ensures this.
- d. **Storm Water Reopener (Part I.B.4)**
Rationale: Section 402 of the Clean Water Act limits the discharge of industrial storm water pollution and establishes a framework for developing permits over time based on a 4 tier set of priorities.
- e. **Hydrostatic Testing (Part I.B.5)**
Rationale: Hydrostatic test water discharges qualify for permit coverage under the State Water Control Law and the Clean Water Act. Advance notification will improve enforcement of the permit during these activities. Limits are based upon the VPDES Permit Manual, Virginia Water Quality Standards, and the VPDES General Permit for Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests.
- f. **Compliance Reporting (Part I.B.6)**
Rationale: Authorized by VPDES Permit Regulation, 9 VAC 25-31-190 J 4 and 220 I. This condition is necessary when toxic pollutants are monitored by the permittee and a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values.
- g. **Water Quality Criteria Monitoring (Part I.B.7)**
Rationale: State Water Control Law § 62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. To ensure that water quality standards are maintained, the permittee is required to analyze the facility's effluent for the substances noted.
- h. **Oil Storage Ground Water Monitoring Reopener (Part I.B.8)**
Rationale: Most facilities with large oil storage tanks, above or under ground, are required to monitor ground water under the Oil Discharge Contingency Plans and Administrative Fees for Approval Regulation, 9 VAC 25-90-10 et seq. Where potential exists for ground water pollution and that regulation does not require monitoring, the VPDES permit may under Code of Virginia §62.1-44.21.

i. **Total Maximum Daily Load (TMDL) Reopener (Part I.B.9)**

Rationale: Section 303(d) of the Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The re-opener recognizes that, according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan, or other wasteload allocation prepared under section 303 of the Act.

j. **Toxic Management Program (Part I.C)**

Rationale: VPDES Permit Regulation, 9 VAC 25-31-210 and 220 I, requires monitoring in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. The TMP Justification Memorandum in **Attachment C** contains a more detailed discussion of the basis for this requirement.

20. **NPDES Permit Rating Worksheet:** Total Score 70

See **Attachment H**.

21. **Changes to Permit:**

See Table II for changes made to the effluent limitations page (Part I.A).

Special Conditions:

The permit language in the special conditions has been updated to reflect the current VPDES Permit Manual.

Part I.B.5: Revised the hydrostatic test water discharge limits for benzene from 53 µg/L to 12 µg/L to protect the human health criteria for a PWS designated water. Total xylenes limit changed from 74 µg/L to 33 µg/L to be consistent with the hydrostatic testing BPJ limit in the VPDES General Permit for Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests.

Part I.B.7: Attachment A water quality monitoring parameters has been revised.

Part I.B.8: The Effluent Monitoring Frequencies special condition (old Part I.B.8) is deleted since the facility is not eligible for reduced monitoring. The Oil Storage Groundwater Monitoring Reopener (old Part I.B.9) has been renumbered (new Part I.B.8).

Part I.B.9: The Oil Storage Groundwater Monitoring Reopener (old Part I.B.9) has been renumbered (new Part I.B.8). The TMDL Reopener (new Part I.B.9) is a new special condition.

Part I.C: Updated the language to reflect the current language recommended in

Guidance Memo 00-2012. A NOAEC (No Observed Acute Effect Concentration) is to be determined by hypothesis testing and reported in terms of Acute Toxic Units (TU_a).

22. Variances/Alternate Limits or Conditions:

No variances/alternate limits or conditions are included in this permit.

23. Public Notice Information:

All pertinent information is on file and may be inspected or copied by contacting Kevin Harlow at Virginia DEQ – WCRO, 3019 Peters Creek Road, Roanoke, VA 24019 and 540-562-6700; kaharlow@deq.virginia.gov.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requester's interests would be directly and adversely affected by the proposed permit action. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given.

24. Additional Comments:

A. Previous Board Action: None

B. Staff Comments: The discharge is not controversial. The discharge is not addressed in any planning document.

C. Public Comments:

No comments were received during the public notice period.

25. 303(d) Listed Segments (TMDL):

This facility discharges into a U.T. to South Fork Goose Creek. This segment of the South Fork Goose Creek and the unnamed tributary are not 303(d) listed segments.

() Interim Limitations
(X) Final Limitations

Table II. EFFLUENT LIMITATIONS FOR INDUSTRIAL PERMITS
Outfall 001

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS			MONITORING REQUIREMENTS	
		Monthly Average	Weekly Average	Minimum	Maximum	Frequency
Flow, MGD	NA	NL	NA	NA	NL	1/D-Month
pH, standard units	3	NA	NA	6.0 s.u.	9.0 s.u.	Estimate
Total Suspended Solids, mg/l	2	NA	NA	NA	30 mg/l NA kg/d	1/D-Month
Total Organic Carbon, mg/l	2	NA	NA	NA	110 mg/l NA kg/d	1/D-Month
Total Petroleum Hydrocarbons, mg/l	2	NA	NA	NA	15 mg/L NA kg/d	1/D-Month

NA = Not Applicable

NL = No Limitations

1/D-Month = Once per month in which a discharge occurs

The basis for the limitations codes are:

1. Federal Effluent Guidelines
2. Best Professional Judgement
3. Water Quality Standards
4. Other

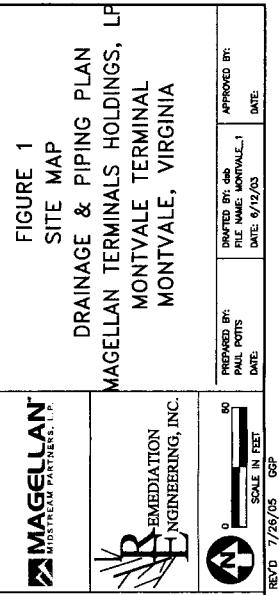
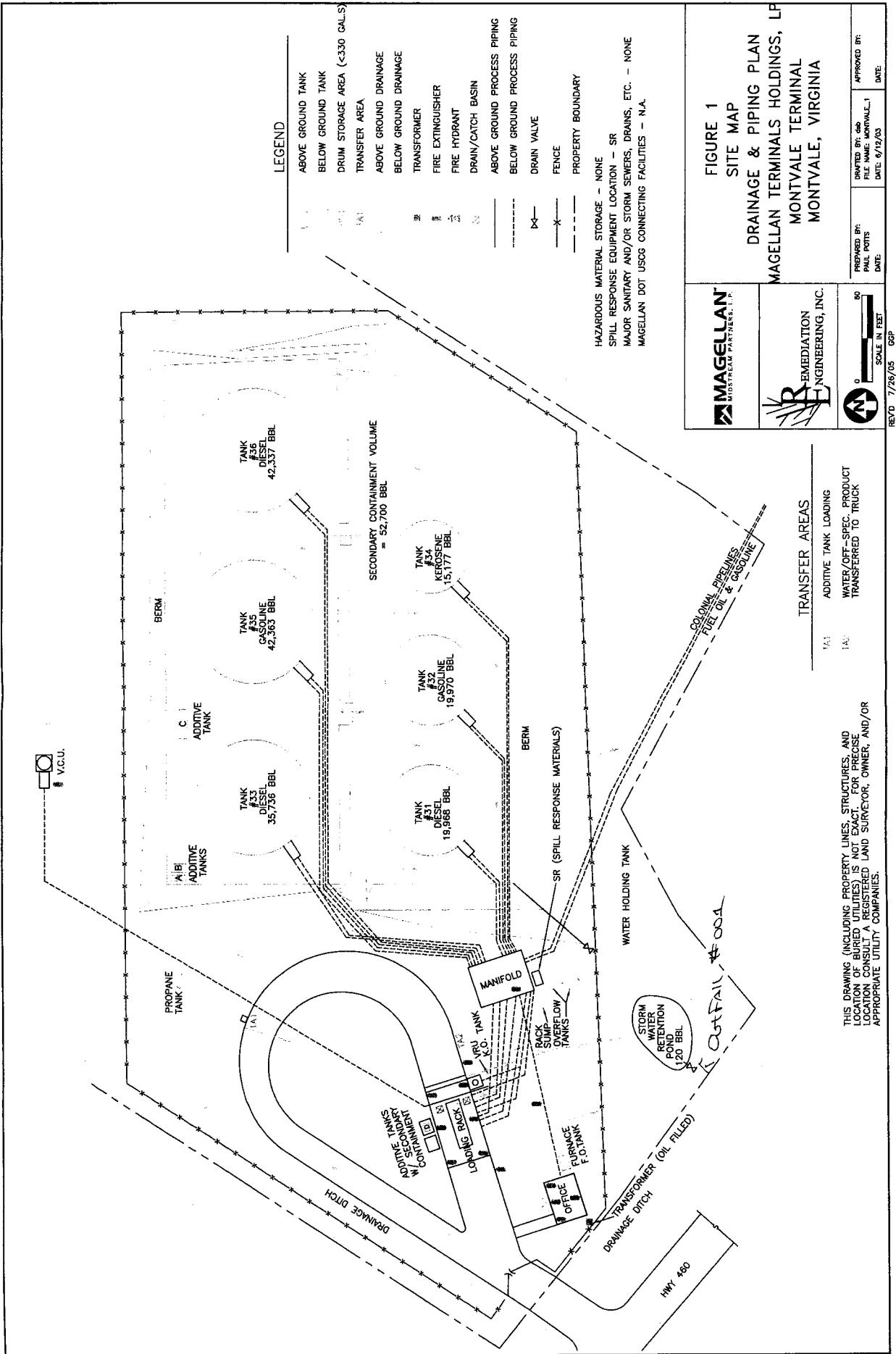
Note: All samples should be collected from the discharge resulting from a storm event. The grab sample should be taken during the first 3 hours of discharge.

TABLE III: OUTFALL 001 CHANGE TABLE FOR THE FINAL LIMITS

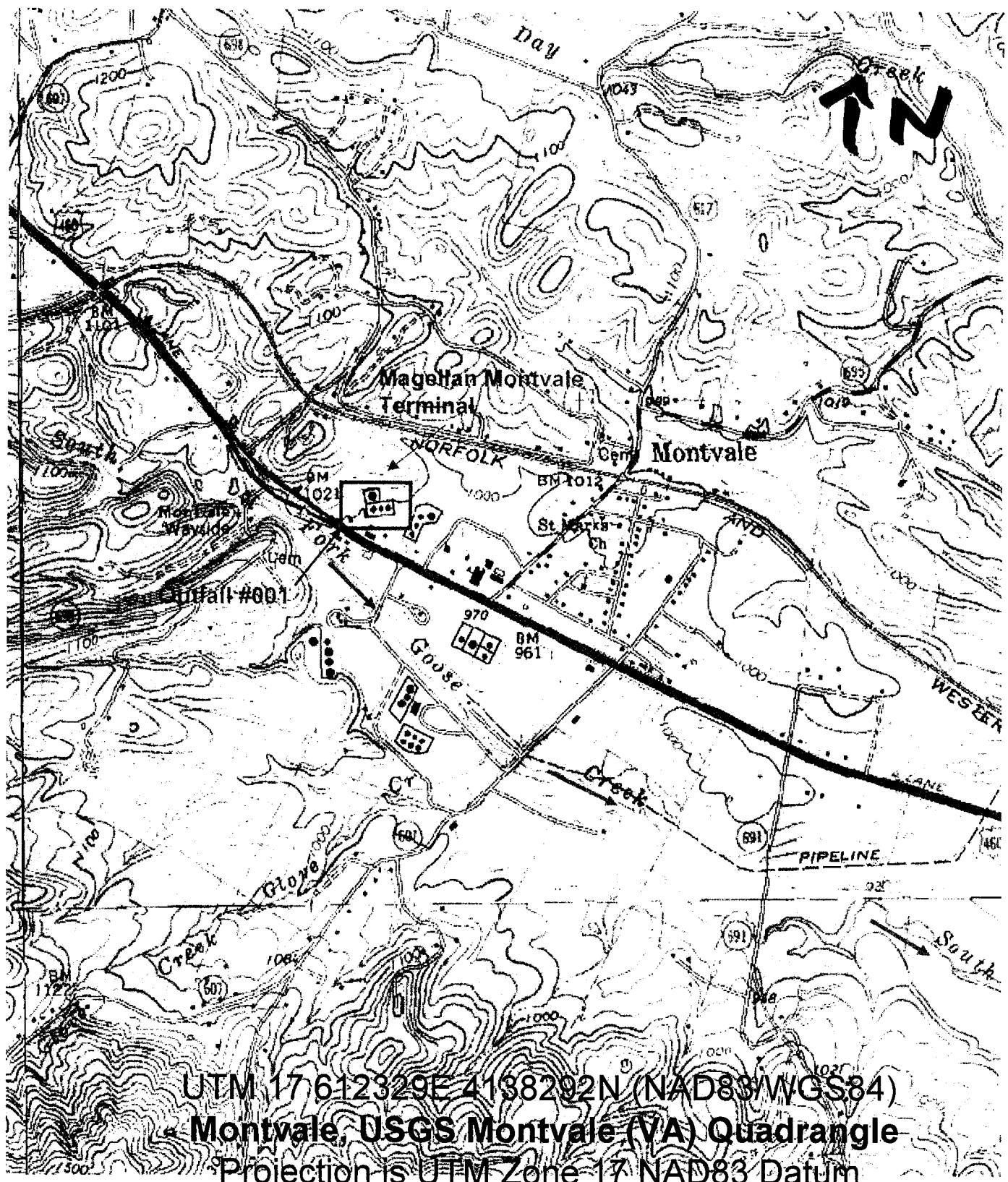
Parameter Changed	Monitoring Requirement Changed		Effluent Limits Changed		Reason for Change
	FROM	TO	FROM	TO	
TPH	1/6-Months	1/D-Month	30 mg/l Monthly Average	15 mg/L Daily Maximum	Loss of reduced monitoring frequency due to receiving Warning Letters. VPDES Permit Manual recommends BPL daily maximum TPH limit of 15 mg/L. The new limit also is consistent with the TPH limit in the VPDES General Permit for Petroleum Contaminated Sites, Groundwater Remediation, and Hydrostatic Tests.
TOC	1/6-Months	1/D-Month	110 mg/l Daily Maximum	110 mg/l Daily Maximum	Loss of reduced monitoring frequency due to receiving Warning Letters
TSS	1/6-Months	1/D-Month	30 mg/l Daily Maximum	30 mg/L Daily Maximum	Loss of reduced monitoring frequency due to receiving Warning Letters

ATTACHMENT A

- Site/Flow Diagram
- USGS Map
- Site Visit Memo



Magellan Montvale Terminal - Area Map



→ Discharge Flow Path

0 0.2 0.4 0.6 0.8 1 mi

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY West Central Regional Office

3019 Peters Creek Road

Roanoke, VA 24019

SUBJECT: Site Inspection; VA0055328 - Reissuance; Montvale, VA
Magellan Terminal Holdings LP - Montvale Terminal

TO: File

FROM: Kevin A. Harlow

DATE: August 7, 2008

Magellan Terminal Holdings LP – Montvale discharges to a dry VDOT ditch alongside U.S. 460 prior to entering the South Fork Goose Creek due south of the facility on the opposite side of U.S. 460. The permit writer viewed the South Fork Goose Creek at approximately the location the discharge enters the stream during a site visit for TransMontaigne – Atlantic Terminal (VA0026051) on October 4, 2006. The stream is at most 10 foot in width, and average bottom scale and slightly meandering.

On July 28, 2003, the writer completed a site inspection of the above referenced facility for the 2003 permit reissuance. Present during the inspection was Joe Tuck with Magellan Terminal Holdings. The Magellan Terminal Holdings LP - Montvale Terminal is a petroleum product distribution center. Petroleum products are piped to the center, stored in large, above ground tanks and loaded into truck transports for distribution to retailers. Magellan Terminal Holdings acts as a warehouse of the product and does not directly own any of the product. As a result they do not fall under the general bulk terminal SIC of 5171, but instead has a SIC code of 4226 - Special Warehousing and Storage. However, for the purposes of this permitting action, the requirements for 5171 will be applied. Maximum storage capacities for the products are: diesel – 3,574,200 gallons and gasoline – 2,200,800 gallons. In addition there are three additive tanks: a 8,000 gallon diesel additive tank and a 2,000 and a 5,000 gallon tanks of gasoline additives. All of the above ground storage tanks, including the additive tanks, are located inside a bermed and diked area.

Wastewater generated at the site is stormwater which has the potential to be contaminated with petroleum products. The stormwater is generated from two locations. The first location is the tank dike area. The stormwater is held in the tank dike area by keeping the discharge valve normally closed. The stormwater is visually checked for sheen and TSS. The stormwater can be held several weeks to allow the solids to settle. During the previous permit term the facility completed work on laying a gravel layer to cover the clay which should improve the quality of the water and allow them to discharge sooner. On the day of the inspection, the tank dike was dry. When acceptable, the stormwater is released to a sedimentation basin. The stormwater is allowed to settle again and is batch released as necessary in approximately 4000 gallon batches through a 6 inch valve. The second source of stormwater is non-contaminated stormwater that runs off the hillside behind the

tank area and is collected at the base of the driveway in a trench drain that runs perpendicular along the upgradient edge of the transport loading area. This stormwater flows by gravity to the sedimentation pond where it is batch released as described previously.

It is noted that there are two 6 inch overflow pipes through the berm of the sedimentation pond. The intakes to the pipes have an elbow on each so that the intake is below the water surface in order to minimize release of any product that might be on the surface. Because the stormwater from the tank area is controlled by a valve, those discharges do not have the potential to cause an overflow. The uncontrolled stormwater from the hill behind the tank does have the potential to cause an overflow. It was noted in the 1998 site inspection that Mr. Tuck stated that they don't get much runoff from the hill and it does not overflow the pond under normal 1 or 2 inch rainfalls. Overflows occur during extraordinary events only. The pond appeared to be well maintained. The grass had been recently cut and there was no emergent vegetation. There was no noticeable sheen on the pond nor was there any discoloration around the banks of the pond. The water in the pond was muddy on the day of the inspection, but they were not discharging during the inspection. Regular discharges are made from the pond.

The stormwater that collects under the covered transport loading area is collected in drains and flows to a small sump box. A float controlled pump transfers the contaminated water to one of the above ground storage tanks. The water settles to the bottom of the tank where it is periodically pulled off and stored onsite in an underground 10000 gallon tank. The contents of the 10000 gallon tank are periodically pumped and shipped offsite for processing.

Stormwater from the facility grounds northwest of the loading rack flows towards the main entrance where it enters a drainage pipe that discharges to the VDOT ditch. The discharge is only non-contact stormwater from SIC Code 4226. Therefore the discharge is not designated as a permitted outfall.

ATTACHMENT B

- Flow Frequency Memo
- Waste Load Allocation Spreadsheet
- Receiving Stream Background Data
- MIX.exe Output
- Antidegradation Baselines for South Fork Goose Creek

MEMORANDUM
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
WEST CENTRAL REGIONAL OFFICE

3019 Peters Creek Rd.

Roanoke, VA 24019

SUBJECT: Flow Frequency Determination
Magellan Terminals Holdings, L.P. - Montvale Terminal - #VA0055328

TO: Permit File

FROM: Kevin Harlow

DATE: July 15, 2008

COPIES: Kevin Harlow

The Magellan Terminals Holdings, L.P. - Montvale Terminal discharges through Outfall 001 to an UT to the South Fork of Goose Creek in Montvale, VA. Stream flow frequencies are required at this site for use by the permit writer in developing effluent limitations for the VPDES permit.

The values at the discharge point were determined by inspection of the USGS Montvale Quadrangle topographical map which shows there is no stream indicated on the map at the discharge point. For overland flow, **the flow frequencies are 0.0 cfs for the 1Q10, 7Q10, 30Q5, high flow 1Q10, high flow 7Q10, and the harmonic mean.**

Approximately 0.1 miles south of US 460 the unnamed tributary enters the South Fork Goose Creek. The flow frequencies for the South Fork Goose Creek are included below for use in determining the antidegradation baselines.

The USGS conducted several flow measurements on the North Fork Goose Creek from 1951 to 1954 and from 1981 to 1985. The measurements were made at the Route 460 bridge near Montvale, VA. The measurements correlated very well with the same day daily mean values from three continuous record gages; one on the Big Otter River near Evington, VA #02061500, the second on Tinker Creek near Daleville, VA #02055100, and the third on Goose Creek near Huddleston, VA #02059500. A regression equation was determined using the measurements and the daily mean values for each gage. An average of the resulting flow values was then assigned to the measurement site.

The flow frequencies at Outfall 001 were determined by using the values at the measurement site and adjusting them by proportional drainage areas. The data for the reference gages, the measurements site, and the discharge point are presented below.

Big Otter River near Evington, VA (#02061500)
Drainage Area = 320 mi²

1Q30	=	6.5 cfs		
1Q10	=	18 cfs	High Flow 1Q10	= 85 cfs
7Q10	=	21 cfs	High Flow 7Q10	= 98 cfs
30Q10	=	31 cfs	High Flow 30Q10	= 131 cfs
30Q5	=	48 cfs	Harmonic Mean	= 132 cfs

Tinker Creek at Daleville, VA (#02055100)Drainage Area = 11.7 mi²

1Q30	=	0.65 cfs		
1Q10	=	0.96 cfs	High Flow 1Q10	= 2.3 cfs
7Q10	=	1.0 cfs	High Flow 7Q10	= 2.6 cfs
30Q10	=	1.2 cfs	High Flow 30Q10	= 3.2 cfs
30Q5	=	1.6 cfs	Harmonic Mean	= 5.0 cfs

Goose Creek near Huddleston, VA (#02059500)Drainage Area = 188 mi²

1Q30	=	11 cfs		
1Q10	=	17 cfs	High Flow 1Q10	= 44 cfs
7Q10	=	20 cfs	High Flow 7Q10	= 52 cfs
30Q10	=	27 cfs	High Flow 30Q10	= 66 cfs
30Q5	=	34 cfs	Harmonic Mean	= 87 cfs

North Fork Goose Creek near Montvale, VA (#02059400)Drainage Area = 31.5 mi²

1Q30	=	4.85 cfs		
1Q10	=	5.57 cfs	High Flow 1Q10	= 9.34 cfs
7Q10	=	5.87 cfs	High Flow 7Q10	= 9.40 cfs
30Q10	=	6.68 cfs	High Flow 30Q10	= 10.27 cfs
30Q5	=	7.72 cfs	Harmonic Mean	= 11.22 cfs

South Fork Goose Creek at discharge pointDrainage Area = 3.95 mi²

1Q30	=	0.61 cfs (0.39 MGD)		
1Q10	=	0.75 cfs (0.48 MGD)	High Flow 1Q10	= 1.12 cfs (0.72 MGD)
7Q10	=	0.78 cfs (0.51 MGD)	High Flow 7Q10	= 1.18 cfs (0.76 MGD)
30Q10	=	0.87 cfs (0.56 MGD)	High Flow 30Q10	= 1.29 cfs (0.83 MGD)
30Q5	=	0.97 cfs (0.63 MGD)	Harmonic Mean	= 1.41 cfs (0.91 MGD)

The high flow months are January–May. This analysis does not address withdrawals or springs influencing the flow in South Fork Goose Creek upstream of the discharge point. There are several other VPDES discharges in the South Fork Goose Creek watershed that have not been addressed in this analysis.

VA0055328 - Water Quality Monitoring Data
Magellan Terminal Holdings - Montvale Terminal

Date	Hardness (mg/l as CaCO ₃)	Zinc	Barium	Naphthalene	BTEX(Total)	BOD5
Dec-03	96					
Dec-04	96					
Oct-05	42	0	21.6			
Apr-06	140					
Feb-07	60					
Apr-07	74	0	32			
Dec-07				<2	<13	<2
Feb-08				<2	<13	<2
Mar-08	162					
Average	95.7					

modout.txt

Mixing Zone Predictions for
Terminal

Magellan Terminal Holdings - Montvale

Effluent Flow = 0.003 MGD
Stream 7Q10 = .51 MGD
Stream 30Q10 = .56 MGD
Stream 1Q10 = .48 MGD
Stream slope = .001 ft/ft
Stream width = 10 ft
Bottom scale = 3
Channel scale = 1

Mixing Zone Predictions @ 7Q10

Depth = .3744 ft
Length = 206.32 ft
Velocity = .2121 ft/sec
Residence Time = .0113 days

Recommendation:

A complete mix assumption is appropriate for this situation and the entire 7Q10 may be used.

Mixing Zone Predictions @ 30Q10

Depth = .3966 ft
Length = 196.13 ft
Velocity = .2197 ft/sec
Residence Time = .0103 days

Recommendation:

A complete mix assumption is appropriate for this situation and the entire 30Q10 may be used.

Mixing Zone Predictions @ 1Q10

Depth = .3608 ft
Length = 213.19 ft
Velocity = .2072 ft/sec
Residence Time = .2858 hours

Recommendation:

A complete mix assumption is appropriate for this situation and the entire 1Q10 may be used.

Virginia DEQ Mixing Zone Analysis Version 2.1

Station_ID 4AGSE037.78
 Station_Description STA #22 RT. 755 BRIDGE (BEDFORD COUNTY)
 Stream_Name GOOSE CREEK (UPPER)
 Watershed_Code VAW-L20R

Collection Date Time	Field_pH	Temp_Celsius	Hardness (mg/L CaCO3)
5/15/86 9:10 AM	7.6	13	146
6/16/86 9:00 AM	7.8	18.5	147
7/2/86 2:30 PM	8.1	20.8	154
8/4/86 1:20 PM	8.2	23	170
9/2/86 3:50 PM	7.6	16.2	180
10/14/86 9:25 AM	7.2	15.8	134
11/13/86 12:45 PM	7.9	8.8	162
12/10/86 9:30 AM	7.2	9.7	185
1/15/87 8:20 AM	7.5	6.5	162
2/5/87 8:30 AM	6.9	3.2	112
3/10/87 10:00 AM	7	5	112
4/8/87 9:30 AM	7.3	8.1	108
5/5/87 9:00 AM	7.73	11.5	137
6/2/87 9:30 AM	7.78	19.5	98
7/20/87 9:00 AM	7.9	19.3	134
8/3/87 8:50 AM	7.8	20.5	150
9/1/87 10:05 AM	7.8	18.4	172
10/1/87 10:00 AM	7.6	13.8	158
11/4/87 9:30 AM	8.4	15.3	135
12/2/87 9:00 AM	9	6.2	132
1/5/88 9:30 AM	8.5	4.1	156
3/2/88 1:00 PM	8	7.5	140
5/2/88 8:40 AM	7.3	11.9	120
6/8/88 8:45 AM	8.3	17.8	156
8/19/92 2:00 PM	9.03	22.8	56
7/26/94 10:00 AM	7.94	22.7	127
10/25/94 9:30 AM	7.75	11.4	150
1/17/95 10:30 AM	7.55	8.3	63
10/10/95 10:00 AM	8	23.5	156
1/22/96 10:30 AM	7.1	2.8	68
4/8/96 10:00 AM	7.9	7.1	80
7/18/96 10:00 AM	7.9	22.5	124
10/15/96 9:30 AM	8.5	14	111
1/13/97 9:30 AM	8.7	1.5	100
4/7/97 9:00 AM	7.8	13.5	92.5
7/31/97 9:30 AM	7.9	18.3	146
10/15/97 9:30 AM	7.9	14.7	150
1/27/98 9:30 AM	7.5	4.4	76
3/30/98 9:00 AM	8.1	15	79
7/13/98 10:00 AM	8.5	22.4	144
10/22/98 10:00 AM	8	11.3	100
1/25/99 10:00 AM	7.8	6.4	84
4/12/99 10:00 AM	8.5	12.8	100
8/19/99 8:30 AM	8.34	22	151
12/27/99 8:50 AM	8.57	3.7	113
2/24/00 8:15 AM	7.58	7.6	94
4/24/00 8:15 AM	7.45	12.2	90
6/21/00 8:30 AM	7.67	22	142
7/13/00 8:30 AM	7.5	21.1	151
9/27/00 9:15 AM	6.82	13.5	96.4
11/29/00 8:00 AM	6.97	6.1	132
1/24/01 9:30 AM	7.71	2.9	96.7
3/12/01 10:20 AM	9.03	8.6	111
5/22/01 10:20 AM	7.68	17.1	97.4
Average			125
90%ile	8.50	22.28	
10%ile	7.2		

FRESHWATER WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: Magellan Terminal Holdings - Montvale Terminal

Receiving Stream: UT to South Fork of Goose Creek

Permit No.: VA0055328

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information		Stream Flows		Mixing Information				Effluent Information			
Mean Hardness (as CaCO ₃) =	125 mg/L	1Q10 (Annual) =	0.48 MGD	Annual - 1Q10 Mix =	100 %	100 %	100 %	Mean Hardness (as CaCO ₃) =	95.7 mg/L	-	-
90% Temperature (Annual) =	22.3 deg C	7Q10 (Annual) =	0.51 MGD	- 7Q10 Mix =	100 %	100 %	100 %	90% Temp (Annual) =	20 deg C	-	-
90% Temperature (Wet season) =	22.3 deg C	3Q10 (Annual) =	0.56 MGD	- 3Q10 Mix =	100 %	100 %	100 %	90% Temp (Wet season) =	12. deg C	-	-
90% Maximum pH =	8.5 SU	1Q10 (Wet season) =	0.72 MGD	Wet Season - 1Q10 Mix =	100 %	100 %	100 %	90% Maximum pH =	8 SU	-	-
10% Maximum pH =	7.2 SU	3Q10 (Wet season) =	0.83 MGD	- 3Q10 Mix =	100 %	100 %	100 %	10% Maximum pH =	7 SU	-	-
Tier Designation (1 or 2) =	2	3Q05 =	0.63 MGD	Discharge Flow =				Tier Designation (1 or 2) =	0.003 MGD	-	-
Public Water Supply (PWS) Y/N? =	Y	Harmonic Mean =	1.41 MGD					Public Water Supply (PWS) Y/N? =	1.41 MGD	-	-
Trout Present Y/N? =	N	Annual Average =	1.41 MGD					Trout Present Y/N? =	1.41 MGD	-	-
Early Life Stages Present Y/N? =	Y							Early Life Stages Present Y/N? =	Y	-	-

Parameter	Background Conc.	Water Quality Criteria			Wasteload Allocations			Antidegradation Allocations			Most Limiting Allocations			
		Acute	Chronic	HH (PWS)	Acute	Chronic	HH	Acute	Chronic	HH (PWS)	Acute	Chronic	HH (PWS)	HH
Acenaphthene	0	-	-	1.2E+03	2.7E+03	-	-	2.5E+05	5.7E+05	-	-	2.5E+04	5.7E+04	-
Acrolein	0	-	-	3.2E+02	7.8E+02	-	-	6.8E+04	1.6E+05	-	-	6.8E+03	1.6E+04	-
Acrylonitrile ^c	0	-	-	5.9E-01	6.8E+00	-	-	2.8E+02	3.1E+03	-	-	2.8E+01	3.1E+02	-
Aldrin ^c	0	3.0E+00	-	1.3E-03	1.4E-03	4.8E+02	-	6.1E-01	6.6E-01	7.5E-01	1.3E-04	1.2E+02	6.6E-02	6.6E-02
Ammonia-N (mg/l) (Yearly)	0	3.24E+00	6.66E-01	-	-	5.2E+02	1.2E+02	-	-	8.10E-01	1.66E-01	-	-	-
Ammonia-N (mg/l) (High Flow)	0	3.23E+00	6.65E-01	-	-	7.8E+02	1.8E+02	-	-	8.07E-01	1.66E-01	-	-	-
Anthracene	0	-	-	9.6E+03	1.1E+05	-	-	2.0E+06	2.3E+07	-	-	9.6E+02	1.1E+04	-
Antimony	0	-	-	1.4E+01	4.3E+03	-	-	3.0E+03	9.1E+05	-	-	1.4E+00	4.3E+02	-
Arsenic	0	3.4E+02	1.5E+02	1.0E+01	-	5.5E+04	2.6E+04	2.1E+03	-	8.5E+01	3.8E+01	1.0E+00	6.4E+03	2.1E+02
Barium	0	-	-	2.0E+03	-	-	-	4.2E+05	-	-	-	2.0E+02	2.3E+06	-
Benzene ^c	0	-	-	1.2E+01	7.1E+02	-	-	5.7E+03	3.3E+05	-	-	5.7E+02	3.3E+04	-
Benzidine ^c	0	-	-	1.2E-03	5.4E-03	-	-	5.7E-01	2.5E+00	-	-	5.7E-02	2.5E-01	-
Benzo (a) anthracene ^c	0	-	-	4.4E-02	4.9E-01	-	-	2.1E+01	2.3E+02	-	-	4.4E-01	2.3E+01	-
Benzo (b) fluoranthene ^c	0	-	-	4.4E-02	4.9E-01	-	-	2.1E+01	2.3E+02	-	-	4.4E-01	2.3E+01	-
Benzo (k) fluoranthene ^c	0	-	-	4.4E-02	4.9E-01	-	-	2.1E+01	2.3E+02	-	-	4.4E-01	2.3E+01	-
Benzo (a) pyrene ^c	0	-	-	4.4E-02	4.9E-01	-	-	2.1E+01	2.3E+02	-	-	4.4E-01	2.3E+01	-
Bis2-Chloroethyl Ether	0	-	-	3.1E-01	1.4E+01	-	-	6.5E+01	3.0E+03	-	-	3.1E-02	1.4E+00	-
Bromform ^c	0	-	-	1.4E+03	1.7E+05	-	-	3.0E+05	3.6E+07	-	-	1.4E+02	1.7E+04	-
Butylbenzylphthalate	0	-	-	3.0E+03	5.2E+03	-	-	6.3E+05	1.1E+06	-	-	3.0E+02	5.2E+02	-
Cadmium	0	5.0E+00	1.4E+00	5.0E+00	-	8.1E+02	2.3E+02	1.1E+03	-	1.3E+00	3.4E-01	5.0E-01	2.0E+02	5.8E+01
Carbon Tetrachloride ^c	0	-	-	2.5E+00	4.4E+01	-	-	1.2E+03	2.1E+04	-	-	2.5E-01	4.4E+00	-
Chlordane ^c	0	2.4E+00	4.3E-03	2.1E-02	2.2E-02	3.9E+02	7.4E-01	9.9E+00	1.0E+01	6.0E-01	2.1E-03	9.9E-01	1.0E+00	-
Chloride	0	8.6E+05	2.3E+05	2.5E+05	-	1.4E+08	3.9E+07	5.3E+07	-	2.2E+05	5.8E+04	2.5E+04	3.5E+07	9.8E+06
TRC	0	1.9E+01	1.1E+01	-	6.8E+02	2.1E+04	-	-	1.4E+05	4.4E+06	-	-	6.8E+01	2.1E+03
Chlorobenzene	0	-	-	-	-	-	-	-	-	-	-	-	-	-

ATTACHEMENT C

- ◆ Toxics Management Program Justification

M E M O R A N D U M

DEPARTMENT OF ENVIRONMENTAL QUALITY
West Central Regional Office

3019 Peters Creek Road

Roanoke, VA 24019

SUBJECT: Magellan Terminals Holdings LP - Montvale Terminal
Reissuance of VPDES Permit No. VA0055328
TMP Justification

TO: Permit File

FROM: Kevin Harlow

DATE: July 23, 2008

COPIES: TMP File

CURRENT TMP REQUIREMENTS:

Commencing within six months of the effective date of the 2003 permit, the permittee was required to conduct annual 48-hour acute toxicity tests using *C. dubia* for the duration of the permit. The sample type is grab.

The acute tests are 48-hour static tests conducted in such a manner and at sufficient dilutions for calculation of a valid LC₅₀. The LC₅₀ must be greater than or equal to 100% effluent.

DISCUSSION:

TMP monitoring in the 2003 permit was a continuation from the previous permit. TMP monitoring will continue in the reissued permit since the facility is a bulk oil storage terminal, which is an applicable criteria listed in the TMP guidance manual for guidelines to follow to require TMP monitoring at VPDES facilities. Also, in accordance with 9VAC 25-31-220.D.1.b. of the *VPDES Permit Regulation*, "When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criteria within a Virginia water quality standard, the Board shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity), and where appropriate, the dilution of the effluent in the receiving water. The TMP testing requirement procedure in this facility's permit addresses the sensitivity of the species to toxicity testing and allows the Board to determine whether the discharge causes, has the reasonable potential to cause, or contributes to an instream excursion above a narrative or numeric criteria within a Virginia water quality standard."

Magellan Terminals Holdings LP - Montvale Terminal
TMP Justification
Page 2

Ceriodaphnia dubia acute toxicity test results from effluent collected at outfall 001 at Williams Terminals Holdings LP - Montvale Terminal; VA0055328.

Date	Test	LC ₅₀	% Survival in 100% Effluent
Dec-03	1st Annual	>100%	100
Dec-04	2nd Annual	>100%	100
Apr-06	3rd Annual	>100%	100
Feb-07	4th Annual	>100%	100
Mar-08	5th Annual	>100%	90

RECOMMENDATIONS:

Continue annual 48-hour acute toxicity testing on Outfall 001 with *Ceriodaphnia dubia*.

ATTACHMENT D

- ◆ NPDES Rating Worksheet

NPDES Permit Rating Work Sheet

NPDES NO: V_A_0_0_5_5_3_2_8

Facility Name:

M_a_g_e_L_L_a_n_E_n_e_r_g_y_M_o_n_t_v_a_l_e_I_T_e_r_m_i_n_a_l

City: M_o_n_t_v_a_e

Receiving Water: S_L_F_o_r_k_G_o_o_s_e_C_r_e_e_k_U_T

Reach Number: V_A_W_L_L_2_0_R

- Regular Addition
- Discretionary Addition
- Score change, but no status change
- Deletion

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- YES; score is 700 (stop here)
 NO (continue)

YES: score is 600 (stop here) NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: 1_1_1_1_1 Primary SIC Code: 4_2_2_6

Other SIC Codes: 1_1_1_1_1 1_1_1_1_1 1_1_1_1_1 1_1_1_1_1

Industrial Subcategory Code: 0_0_0 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	15	<input type="checkbox"/> 7.	7	35
<input checked="" type="checkbox"/> 1.	1	5	<input type="checkbox"/> 4.	4	20	<input checked="" type="checkbox"/> 8.	8	40
<input type="checkbox"/> 2.	2	10	<input type="checkbox"/> 5.	5	25	<input type="checkbox"/> 9.	9	45
			<input type="checkbox"/> 6.	6	30	<input type="checkbox"/> 10.	10	50

Code Number Checked: 0_8

Total Points Factor 1: 4_0

FACTOR 2: Flow/Stream Flow Volume (Complete Either Section A or Section B; check only one)

Section A--Wastewater Flow Only Considered

Wastewater Type (See Instructions)	Code	Points	Wastewater Type (See Instructions)	Percent of Instream Wastewater Concentra- tion at Receiving Stream Low Flow	Code	Points
Type I: Flow < 5 MGD	11	0				
Flow 5 to 10 MGD	12	10				
Flow > 10 to 50 MGD	13	20				
Flow > 50 MGD	14	30	Type I/III:	< 10%	41	0
Type II: Flow < 1 MGD	21	10				
Flow 1 to 5 MGD	22	20				
Flow > 5 to 10 MGD	23	30				
Flow > 10 MGD	24	50				
Type III: Flow < 1 MGD	31	0	Type II:	< 10%	51	0
Flow 1 to 5 MGD	32	10				
Flow > 5 to 10 MGD	33	20				
Flow > 10 MGD	34	30				

Code Checked from Section A or B: 2_1

Total Points Factor 2: 1_0

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutant: (check one) BOD COD Other:

Permit Limits: (check one)	<u>X</u>	<input type="checkbox"/> < 100 lbs/day	Code	Points
	<u> </u>	<input type="checkbox"/> 100 to 1000 lbs/day	1	0
	<u> </u>	<input type="checkbox"/> >1000 to 3000 lbs/day	2	5
	<u> </u>	<input type="checkbox"/> >3000 lbs/day	3	15

Code Checked: 1
 Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	<u>X</u>	<input type="checkbox"/> < 100 lbs/day	Code	Points
	<u> </u>	<input type="checkbox"/> 100 to 1000 lbs/day	1	0
	<u> </u>	<input type="checkbox"/> >1000 to 5000 lbs/day	2	5
	<u> </u>	<input type="checkbox"/> >5000 lbs/day	3	15
	<u> </u>		4	20

Code Checked: 1
 Points Scored: 0

C. Nitrogen Pollutant: (check one) Ammonia Other: _____

Permit Limits: (check one)	<u>X</u>	<input type="checkbox"/> < 300 lbs/day	Code	Points
	<u> </u>	<input type="checkbox"/> 300 to 1000 lbs/day	1	0
	<u> </u>	<input type="checkbox"/> >1000 to 3000 lbs/day	2	5
	<u> </u>	<input type="checkbox"/> >3000 lbs/day	3	15
	<u> </u>		4	20

Code Checked: 1
 Points Scored: 0

Total Points Factor 3: 0**FACTOR 4: Public Health Impact**

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

YES (if yes, check toxicity potential number below) (Town of Altavista)
 NO (if no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column -- check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
<input type="checkbox"/> No process waste streams	0	0	<input type="checkbox"/> 3.	3	0	<input type="checkbox"/> 7.	7	15
<input type="checkbox"/> 1.	1	0	<input type="checkbox"/> 4.	4	0	<input checked="" type="checkbox"/> 8.	8	20
<input type="checkbox"/> 2.	2	0	<input type="checkbox"/> 5.	5	5	<input type="checkbox"/> 9.	9	25
			<input type="checkbox"/> 6.	6	10	<input type="checkbox"/> 10.	10	30

Code Number Checked: 0_8
 Total Points Factor 4: 2

NPDES Permit Rating Work Sheet

NPDES No.: V_A_0_0_5_5_3_2_8

FACTOR 5: Water Quality Factors

- A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?*

	Code	Points
<input type="checkbox"/> Yes	1	10
<input checked="" type="checkbox"/> No	2	0

- B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

	Code	Points
<input checked="" type="checkbox"/> Yes	1	0
<input type="checkbox"/> No	2	5

- C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

	Code	Points
<input type="checkbox"/> Yes	1	10
<input checked="" type="checkbox"/> No	2	0

Code Number Checked: A B C

Points Factor 5: A + B + C = TOTAL

FACTOR 6: Proximity to Near Coastal Waters N/A

- A. *Base Score: Enter flow code here (from Factor 2):*

Enter the multiplication factor that corresponds to the flow code:

Check appropriate facility HPRI Code (from PCS):

HPRI #	Code	HPRI Score	Flow Code	Multiplication Factor
<input type="checkbox"/>	1	20	11, 31, or 41	0.00
<input type="checkbox"/>	2	0	12, 32, or 42	0.05
<input type="checkbox"/>	3	30	13, 33, or 43	0.10
<input type="checkbox"/>	4	0	14 or 34	0.15
<input type="checkbox"/>	5	20	21 or 51 22 or 52 23 or 53 24	0.10 0.30 0.60 1.00

HPRI code checked:

Base Score: (HPRI Score) x (Multiplication Factor) = 0 (TOTAL POINTS)

- B. *Additional Points--NEP Program*

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

N/A

	Code	Points
<input type="checkbox"/> Yes	1	10
<input type="checkbox"/> No	2	0

- C. *Additional Points--Great Lakes Area of Concern*

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)

N/A

	Code	Points
<input type="checkbox"/> Yes	1	10
<input type="checkbox"/> No	2	0

Code Number Checked: A B C

Points Factor 5: A + B + C = 0 TOTAL

NPDES Permit Rating Work Sheet

NPDES NO: V A 0 0 5 5 3 2 8

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	<u> 40 </u>
2	Flow/Stream Flow Volume	<u> 10 </u>
3	Conventional Pollutants	<u> 00 </u>
4	Public Health Impacts	<u> 20 </u>
5	Water Quality Factors	<u> 00 </u>
6	Proximity to Near Coastal Waters	<u> 00 </u>
TOTAL (Factors 1-6)		<u> 70 </u>

S1. Is the total score equal to or greater than 80? Yes (Facility is a major) No

S2. If the answer to the above question is no, would you like this facility to be discretionary major?

No

 Yes (add 500 points to the above score and provide reason below:

Reason: _____

NEW SCORE: 70

OLD SCORE: 70

 Kevin Harlow
Permit Reviewer's Name

(540) 562 - 6788
Phone Number

 August 7, 2008
Date